

Docket No. 000337

Serial No. 09/761,341

**Listing of Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended): A system for detecting discontinuously transmitted (DTX) frames comprising:

first means for receiving data transmitted in a plurality of frames;

second means for classifying each of the frames;

third means for analyzing the classification of a number of successive frames of the received data and providing a metric with respect thereto, said third means including an infinite impulse response filter (IIR) having an output clamped between two predetermined values for a predetermined number of past and present frames; and

fourth means, responsive to the metric, for determining if a frame is a DTX frame, including reclassifying improperly classified erasure frames to be DTX frames, thereby inhibiting a mobile receiver from requesting retransmission of the frames or a change in transmit power level.

2. (Previously presented): The system of claim 1 wherein the second means includes means for error checking the frames.

3. (Previously presented): The system of claim 2 wherein the means for error checking includes means for performing a cyclic redundancy check.

4. (Previously presented): The system of claim 3 wherein the second means includes means for classifying the frames as good frames, erasure frames, or DTX frames.

5. (Canceled).

6. (Currently amended): The system of claim 3 & further including means for assigning a numerical value to each of the frames based on the classification thereof.

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7. (Previously presented): The system of claim 6 wherein the filter is of the form  $Y_n = Y_{n-1} + X_n$  where 'n' is a frame number,  $Y_n$  is the filter output for a given frame n,  $Y_{n-1}$  is the filter output for a previous frame, and  $X_n$  is a stream of input frames.
8. (Previously presented): The system of claim 7 further including means for setting a threshold for the output  $Y_n$  of the filter.
9. (Previously presented): The system of claim 8 further including means for outputting an indication of a detection of a DTX frame when the filter output exceeds the threshold.
10. (Cancelled).
11. (Previously presented): The system of claim 8 wherein the fourth means reclassifies an improperly classified erasure frame to be a DTX frame if the frame was classified as an erasure frame and the output of the filter exceeds the threshold.
12. (Currently amended): A communications system comprising:
- a transmitter adapted to transmit frames of data, at least some of the frames being discontinuous transmission (DTX) frames;
  - a receiver adapted to receive and classify the transmitted frames;
  - a processor;
  - an infinite impulse response filter having an output clamped between two predetermined values for a predetermined number of past and present frames; and
  - software running on the processor for analyzing the classification of a number of successive frames of the received data and providing a metric with respect thereto, for determining, in response to the metric, if a frame is a discontinuously transmitted frame, and for reclassifying improperly classified erasure frames to be DTX frames and thereby inhibiting a mobile receiver from requesting retransmission of the frames or a change in transmit power level.

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13. (Previously presented): The communications system of claim 12 wherein the system includes an error checking mechanism.

14. (Previously presented): The communications system of claim 13 wherein the error checking mechanism includes means for performing a cyclic redundancy check.

15. (Previously presented): The communications system of claim 14 wherein the system includes means for classifying the frames as good frames, erasure frames, or DTX frames.

16. (Cancelled)

17. (Previously presented): The communications system of claim 16 wherein the software further includes means for assigning a numerical value to each of the frames based on the classification thereof.

18. (Previously presented): The communications system of claim 17 wherein the filter is of the form  $Y_n = Y_{n-1} + X_n$  where 'n' is a frame number,  $Y_n$  is the filter output for a given frame n,  $Y_{n-1}$  is the filter output for a previous frame, and  $X_n$  is a stream of input frames.

19. (Previously presented): The communications system of claim 18 further including means for setting a threshold for the output  $Y_n$  of the filter.

20. (Previously presented): The communications system of claim 19 further including means for outputting an indication of a detection of a DTX frame when the filter output exceeds the threshold.

21. (Cancelled).

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22. (Previously presented): The communications system of claim 20 wherein the software operates for changing the frame classification to DTX if the frame was classified as erasure and the output of the filter exceeds the threshold.

23. (Currently amended): A method for detecting discontinuous transmission (DTX) frames comprising:

receiving data transmitted in a plurality of frames;

classifying each of the frames, wherein said classifying includes computing a filter output:  $Y_n = Y_{n-1} + X_n$  where 'n' is a frame number,  $Y_n$  is the filter output for a given frame n,  $Y_{n-1}$  is the filter output for a previous frame, and  $X_n$  is a stream of input frames, said filter output being clamped between two predetermined values for a value of n within a predetermined range;

analyzing the classification of a number of successive frames of the received data and providing a metric with respect thereto; and

determining, in response to the metric, if a frame is a DTX frame, including reclassifying improperly classified erasure frames to be DTX frames, thereby inhibiting a mobile receiver from requesting retransmission of the frames or a change in transmit power level.

24. (Previously presented): The method of claim 23 wherein said classifying includes error checking the frames.

25. (Previously presented): The method of claim 24 wherein said error checking includes performing a cyclic redundancy check.

26. (Previously presented): The method of claim 25 wherein said classifying includes classifying the frames as good frames, erasure frames, or DTX frames.

27. (Previously presented): The method of claim 26 further including assigning a numerical value to each of the frames based on the classification thereof.

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28. (Canceled)

29. (Currently amended): The method of claim 28 27 further including setting a threshold for the output Yn.

30. (Previously presented): The method of claim 29 further including outputting an indication of a detection of a DTX frame when the filter output exceeds the threshold.

31. (Canceled).

32. (Previously presented): The method of claim 30 wherein said reclassifying improperly classified erasure frames includes changing the frame classification to discontinuous if the frame was classified as erasure and the output of the filter exceeds the threshold.